

I claim:

1. An adaptive level-cutting method of a radio frequency ripple signal for a CD-ROM drive, wherein a digital signal processor is provided, said digital signal processor being capable of building a radio frequency ripple signal central level according to a radio frequency ripple signal, said method comprising the steps of:
5 determining whether the digital signal processor is under tracking control; and performing a low-pass filtering operation on said radio frequency ripple signal to generate said radio frequency ripple signal central level.
2. The adaptive level-cutting method of a radio frequency ripple signal for a CD-ROM drive as claimed in claim 1, further comprising the step of:
10 inputting said radio frequency ripple signal to a first low-pass filter when the digital signal processor is under tracking control.
3. The adaptive level-cutting method of a radio frequency ripple signal for a CD-ROM drive as claimed in claim 2, wherein said first low-pass filter is a one-stage low-pass filter.
15
4. The adaptive level-cutting method of a radio frequency ripple signal for a CD-ROM drive as claimed in claim 3, wherein said one-stage low-pass filter has a lower bandwidth.
5. The adaptive level-cutting method of a radio frequency ripple signal for a CD-ROM drive as claimed in claim 1, further comprising the step of:
20 inputting said radio frequency ripple signal to a second low-pass filter when the digital signal processor is not under tracking control.
6. The adaptive level-cutting method of a radio frequency ripple signal for a CD-ROM drive as claimed in claim 5, wherein said second low-pass filter is a one-stage low-pass filter.
25

7. The adaptive level-cutting method of a radio frequency ripple signal for a CD-ROM drive as claimed in claim 6, wherein said one-stage low-pass filter has a higher bandwidth.
8. The adaptive level-cutting method of a radio frequency ripple signal for a CD-ROM drive as claimed in claim 5, further comprising the steps of:
renewing the initial state of said second low-pass filter;
storing the end state of said second low-pass filter.
9. The adaptive level-cutting method of a radio frequency ripple signal for a CD-ROM drive as claimed in claim 5, further comprising the steps of:
providing a set speed; and
renewing said radio frequency ripple signal central level according to a semi-track flag signal when a speed is lower than the set speed or renewing said radio frequency ripple signal central level according to a sampling frequency of said low-pass filter when the speed is higher than the set speed.
10. The adaptive level-cutting method of a radio frequency ripple signal for a CD-ROM drive as claimed in claim 1, further comprising the step of:
inputting said radio frequency ripple signal and said radio frequency ripple signal central level to a comparator and then outputting a radio frequency zero cross signal from said comparator.
11. An adaptive level cutting device of a radio frequency ripple signal for a CD-ROM drive for building a radio frequency ripple signal central level according to a radio frequency ripple signal, said device comprising:
an analog-to-digital converter for sampling said radio frequency ripple signal;
a digital signal processor connected to said analog-to-digital converter; and
a digital-to-analog converter connected to said digital signal processor and for

outputting said radio frequency ripple signal central level.

12. The adaptive level cutting device of a radio frequency ripple signal for a CD-ROM drive as claimed in claim 11, wherein said digital signal processor comprises a first low-pass filter used under tracking control and a second low-pass
5 filter used under non-tracking control.

13. The adaptive level cutting device of a radio frequency ripple signal for a CD-ROM drive as claimed in claim 12, wherein said first low-pass filter is a one-stage low-pass filter.

14. The adaptive level cutting device of a radio frequency ripple signal for a
10 CD-ROM drive as claimed in claim 13, wherein said one-stage low-pass filter has a lower bandwidth.

15. The adaptive level cutting device of a radio frequency ripple signal for a CD-ROM drive as claimed in claim 12, wherein said second low-pass filter is a one-stage low-pass filter.

15 16. The adaptive level cutting device of a radio frequency ripple signal for a CD-ROM drive as claimed in claim 15, wherein said one-stage low-pass filter has a higher bandwidth.

17. The adaptive level cutting device of a radio frequency ripple signal for a CD-ROM drive as claimed in claim 11, further comprising a comparator, said radio
20 frequency ripple signal and said radio frequency ripple signal central level being input to said comparator, said comparator then outputting a radio frequency zero cross signal.